

- 1 1. A method comprising:
2 negatively biasing a spatial light modulator; and
3 reversing the bias.
- 1 2. The method of claim 1 including biasing a top
2 plate and a pixel electrode.
- 1 3. The method of claim 2 including biasing said top
2 plate to a negative voltage.
- 1 4. The method of claim 3 including maintaining said
2 pixel electrode at a positive voltage.
- 1 5. The method of claim 4 including biasing said
2 pixel electrode across its full dynamic range.
- 1 6. The method of claim 1 including alternately
2 biasing the top plate negatively and positively.
- 1 7. A spatial light modulator comprising:
2 a top plate;
3 a liquid crystal layer;
4 a pixel electrode, said top plate and said pixel
5 electrode sandwiching said liquid crystal layer; and
a drive circuit to apply positive and negative bias
potentials to one of said electrode and said top plate.

1 8. The spatial light modulator of claim 7 including
2 a drive circuit to apply a negative bias potential to said
3 top plate.

1 9. The spatial modulator of claim 7 wherein said
2 spatial light modulator is a liquid crystal over silicon
3 spatial light modulator.

1 10. The spatial light modulator of claim 7 wherein
2 said drive circuit applies positive and negative bias
3 potentials in alternating frames.

1 11. The spatial light modulator of claim 8 wherein
2 said top plate is formed of indium tin oxide.

1 12. A method comprising:
2 applying a positive bias to a spatial light
3 modulator in a negative frame; and
4 applying a negative bias to a spatial light
5 modulator during a positive frame to reduce the magnitude
6 of the positive voltage that is necessary to bias the
7 spatial light modulator.

1 13. The method of claim 12 including biasing a top
2 plate and a pixel electrode.

1 14. The method of claim 13 including biasing said top
2 plate to a negative voltage.

1 15. The method of claim 14 including maintaining said
2 pixel electrode at a positive voltage.

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